Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1.   (Currently Amended) A method for regulating access to data in at least one data storage device in a system comprising a plurality of individual systems, in which ~~the~~each said individual ~~systems reserve themselves~~system reserves free data areas or address areas of a speculatively extended area in the data storage device and blocks the reserved areas ~~are then blocked for~~from access by other said individual systems, ~~with areas which~~wherein the reserved areas are speculatively extended by reserving expansion areas ~~in comparison~~of said speculatively extended area along with ~~the~~reserving directly required areas ~~being~~of said speculatively extended areas ~~reserved~~.

2.   (Currently Amended) The method as claimed in claim 1, wherein the individual systems identify ~~a~~the directly required area from at least one address statement.

3.   (Previously Presented) The method as claimed in claim 1, wherein at least part of the data storage device is provided as a communication device for the individual systems.

4.   (Currently Amended) The method as claimed in claim 1, wherein ~~at least~~ two of said individual systems ~~use~~have expansion areas that overlap with each other to provide a common area ~~of~~in the data storage device for access only by the two said individual systems.

5.   (Previously presented) The method as claimed in claim 1, wherein the system comprising a plurality of

individual systems is a distributed system.

6.   (Currently Amended) The method as claimed in claim 1, wherein at least part of a respective said reserved expansion area going beyond the directly required area is released upon a reservation request relating to at least part of the reserved expansion area from another said individual system or from ~~a~~an additional data storage device.

7.   (Currently Amended) The method as claimed in claim 1, wherein the expansion area for the individual system is released upon a reservation request coming from another said individual system if said expansion area that is requested ~~as~~is a directly required area ~~by this other~~for said another individual system.

8.   (Currently Amended) The method as claimed in claim 7, wherein the expansion area is also released upon a reservation request coming from another said individual system if said expansion area that is requested ~~as~~is an expansion area ~~by this other~~for said another individual system.

9.   (Currently Amended) The method as claimed in claim 7, wherein only a particular part of the expansion area is released upon a reservation request coming from another said individual system if said expansion area likewise relates only to the expansion area ~~in the case~~of ~~this other~~said another individual system.

10.   (Currently Amended) The method as claimed in claim 1, wherein the individual systems ~~are~~comprise individual modules.

11.   (Currently Amended) The method as claimed in claim 1, wherein the individual systems and the at least one data storage device are decoupled from one another by ~~means of~~

buffer cache units.

12. (Currently Amended) The method as claimed in claim 1, wherein the release of the directly required area upon a reservation request coming from another individual system is dependent on the urgency of the respective reservation request.

13. (Currently Amended) The method as claimed in claim 1, wherein reservations relate to ~~the~~at least one of read and~~/or~~ write access.

14. (Currently Amended) A data storage device for regulating access to data in a system comprising a plurality of individual systems~~, particularly individual modules,~~ having reservation means for reserving at least one of free data areas ~~or~~and address areas as reserved areas of a speculatively extended area in the data storage device using reservation requests from the individual systems, where the respective reservation means block the respective reserved areas ~~for~~from access by other said individual systems, and ~~where~~wherein the reservation means are ~~designed to reserve~~capable of selectively reserving expansion areas ~~which are speculatively extended in comparison with the~~of said speculatively extended areas along with reserving directly required areas of said speculatively extended areas.

15. (Currently Amended) The data storage device as claimed in claim 14, wherein the reservation means are designed to ascertain ~~an~~a directly required area which is directly required by ~~an~~the individual system by evaluating at least one address statement ~~which is contained~~provided in a reservation request requesting the directly required area.

16. (Currently Amended) The data storage device as claimed in claim 14, wherein upon a competing reservation

request from a second said individual system, the reservation
means reserve at least part of ~~a~~the speculatively extended
area ~~which~~that is reserved for ~~a~~the first individual system
for the second individual system.

17. (Currently Amended) An individual system,
~~particularly an individual module,~~ for cooperation with ~~a~~the
data storage device as claimed in claim 14 for regulating
access to data in ~~a~~the system comprising a plurality of the
individual systems, having requesting means for reserving at
least one of free data areas ~~or~~and address areas within a
speculatively extended area in the data storage device using
reservation requests, ~~where~~wherein the data storage device
blocks the reserved areas ~~for~~from access by other said
individual systems, and ~~where~~wherein the requesting means are
~~designed to reserve~~capable of reserving at least portions of
the expansion areas ~~which~~of the speculatively extended area
that are speculatively extended ~~in comparison~~along with the
directly required areas of said speculatively extended area.

18. (Currently Amended) The individual system,
~~particularly an individual module,~~ as claimed in claim 17,
wherein the requesting means are designed to send at least one
address statement for identifying at least one said directly
required area in a reservation request requesting at least the
directly required area in the data storage device.

19. (Currently Amended) The individual system,
~~particularly an individual module,~~ as claimed in claim 17,
further comprising communication means for communicating with
at least one further said individual system about a common
memory area ~~which~~that is at least intermittently reserved in
the data storage device, ~~where the~~wherein two said individual
systems respectively identify and are capable of accessing the
common memory area from at least one address statement.

20-25.   (Cancelled).

26. (New) A method for regulating access to data in at least one data storage device in a system comprising a plurality of individual systems, the method including the steps of:

providing the data storage device with a plurality of speculatively extended areas, each said speculatively extending area defined as a continuous block of memory in the data storage device corresponding to one of said individual systems, each said speculatively extending area defined by an address statement, and including at least one directly required area and expansion areas for reserving at least one of free data and address areas, the reserved area comprising a portion of the continuous block of memory in the data storage device;

reserving said directly required area and at least a portion of said speculatively extended areas for one of said individual systems, thereby establishing reserved areas;

blocking access of other said individual systems to the reserved area of the one said individual system; and

providing an address statement from the one said individual system for requesting access to the reserved area of the speculatively extending area in the data storage device, the address statement comprising a first address defining the location in the reserved area to be released and a length statement defining a predetermined portion of the reserved area to be released;

applying the address statement to the data storage device to access the predetermined portion of the reserved area.

27. (New) The method of Claim 26, comprising:

subsequently selectively increasing or reducing the size of the reserved area and thus the size of said expansion area that is reserved for the one said individual system.

28. (New) The method of Claim 27, including the steps of:

before selectively changing the size of the reserved area of the one said individual system, reserving a second directly required area and at least a portion of a second expansion area of a second said speculatively extended area for a second one of said individual systems, thereby establishing a second reserved area; and

wherein the step of reducing or increasing the size of the first reserved area of said first speculatively extended area that is reserved for the first individual system comprises proportionally increasing or reducing the size of the second reserved area of the second individual system to utilize the full extent of the data storage device as a continuous block of memory for the first and second individual systems.

29. (New) The method of Claim 26, wherein the predetermined portion of the reserved area comprises the entire reserved area, and wherein the step of applying the address statement to access the predetermined portion of the reserved area comprises writing data to at least portions of the reserved area.

30. (New) The method of Claim 26, wherein different addresses for the address statement correspond to different first locations in the reserved area so that providing the address statement with a selected address and selected length to the data storage device accesses a predetermined portion of

one or both of the directly required area and the expansion
areas of the reserved area in a single request, which reduces
the number of requests needed to obtain data, and

wherein each said individual system includes a directly
required area in said data storage device having a specific
unique address so that the individual system is capable of
obtaining at least one of free data and address areas of
variable length from the corresponding respective reserved
area of the respective speculatively extended area.

31. (New) The method of Claim 26, including:

sending a retract message from the data storage device to
the one of the individual systems having the reserved area,
the retract message requesting that said one individual system
agree to return at least a portion of the expansion areas and
thus reduce the size of the reserved area thereof.

32. (New) The method of Claim 27, wherein the step of
varying the size of the reserved area changes the size of the
continuous block of memory in the data storage device assigned
to the one individual system and wherein the address statement
enables the one said individual system to access the
predetermined portion of the reserved area to modify data
stored thereat without a fresh reservation request.